

1641

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/653,755A

DATE: 02/21/2001  
TIME: 13:16:23

Input Set : A:\Mab4g10.app  
Output Set: N:\CRF3\02212001\I653755A.raw

ENTERED

3 <110> APPLICANT: Eisinger, Dominic P.  
4 Stiles, Lynn  
5 LaMarche, Arthur  
6 Jelinek, Thomas  
8 <120> TITLE OF INVENTION: Recombinant Monoclonal Antibody Specific for  
9 Phosphotyrosine-Containing Proteins  
11 <130> FILE REFERENCE: 724650-3  
C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/653,755A  
14 <141> CURRENT FILING DATE: 2000-09-01  
16 <160> NUMBER OF SEQ ID NOS: 12  
18 <170> SOFTWARE: PatentIn Ver. 2.1  
20 <210> SEQ ID NO: 1  
21 <211> LENGTH: 1365  
22 <212> TYPE: DNA  
23 <213> ORGANISM: Artificial Sequence  
25 <220> FEATURE:  
26 <223> OTHER INFORMATION: Description of Artificial Sequence: cDNA for heavy  
27 chain of recombinant antibody  
29 <400> SEQUENCE: 1  
30 gaggtccagc tgcacagtc tggacctgaa ctggtgaagc ctggggcttc agtgatgata 60  
31 tcctgcagga cttctgcata cacattcact gaaaacacgc tgcactgggt gaagcagagc 120  
32 catggagaga gccttgagtg gattggaggt attaatcctt actatggtgg ttctatcttc 180  
33 agcccgaaagt tcaagggcaa ggccacattg actgtagaca agtcctccag cacagcctac 240  
34 atggagctcc gcagcctgac atctgaggat tctgcagtct attactgtgc aagaagggct 300  
35 ggggcgtact actttgacta ctggggccaa ggcaccactc tcacagtctc ctcagccaaa 360  
36 acaaacacccc catcagtcta tccactggcc cctgggtgtg gagatacaac tggttcctcc 420  
37 gtgactcttg gatgcctggc caagggctac ttccctgagt cagtgtgtgt gacttggaa 480  
38 tctggatccc tgtccagcag tgtgcacacc ttcccagctc tcctgcagtc tggactctac 540  
39 actatgagca gctcagtgac tgtcccctcc agcacctggc caagtcagac cgtcacctgc 600  
40 agcgttgctc acccagccag cagcaccacg gtggacaaaa aacttgagcc cagcggggcc 660  
41 atttcaacaa tcaacccctg tctccatgc aaggagtgtc acaaatgccc agctcctaac 720  
42 ctcgaggggtg gaccatccgt cttcatcttc cctccaaata tcaaggatgt actcatgatc 780  
43 tccttgacac ccaaggtcac gtgtgtggtg gtggatgtga gcgaggatga cccagacgtc 840  
44 cagatcagct ggtttgtgaa caacgtggaa gtacacacag ctcagacaca aacctataga 900  
45 gaggattaca acagtactat ccgggtggtc agcacctcc ccatccagca ccaggactgg 960  
46 atgagtggca aggagttcaa atgcaagtc aacaacaaag acctccatc acccatcgag 1020  
47 agaaccatct caaaaattaa agggctagtc agagctccac aagtatacat cttgccgcca 1080  
48 ccagcagagc agttgtccag gaaagatgtc agtctcactt gcctgggtcgt gggcttcaac 1140  
49 cctggagaca tcagtgtgga gtggaccagc aatgggcata cagaggagaa ctacaaggac 1200  
50 accgcaccag tcctggactc tgacggttct tacttcatat atagcaagct caatatgaaa 1260  
51 acaagcaagt gggagaaaac agattccttc tcatgcaacg tgagacacga gggctctgaa 1320  
52 aattactacc tgaagaagac catctcccg tctccgggta aatga 1365  
55 <210> SEQ ID NO: 2  
56 <211> LENGTH: 645  
57 <212> TYPE: DNA  
58 <213> ORGANISM: Artificial Sequence  
60 <220> FEATURE:

RAW SEQUENCE LISTING                      DATE: 02/21/2001  
 PATENT APPLICATION: US/09/653,755A        TIME: 13:16:23

Input Set : A:\Mab4g10.app  
 Output Set: N:\CRF3\02212001\I653755A.raw

```

61 <223> OTHER INFORMATION: Description of Artificial Sequence:cDNA for light
62   chain of recombinant antibody
64 <400> SEQUENCE: 2
65 gaaaatgtgc tcacccagtc tccagcaatc atgtctgcat ctccagggga aaaggtcacc 60
66 atgacctgca gggccagctc aagtgtagt tccagttact tgcactggta tcggcagaag 120
67 tcaggtgcct ccccaaaact ctggatttat agcacatcca acttggcttc tggagtccct 180
68 gctcgcttca gtggcagtggt gtctgggacc tcttactctc tcacaatcag cagtgtggag 240
69 gctgaagatg ctgccactta ttactgccag cagtacagtg gttaccggac gttcgggtga 300
70 ggcaccaagc tggaaatcaa acgggctgat ctgacaccaa ctgtatccat cttcccaaca 360
71 tccagtgcgc agttaacatc tggaggtgcc tcagtcgtgt gcttcttgaa caacttctac 420
72 cccagagaca tcaatgtcaa gtggaagatt gatggcagtg aacgacaaaa tgggtgcctg 480
73 aacagttgga ctgatcagga cagcaaagac agcacctaca gcatgagcag caccctcaca 540
74 ttgaccaagg acgagtatga acgacataac agctatacct gtgagggcac tcacaagaca 600
75 tcaacttcac ccacgtgcaa gagcttcaac aggaatgagt gttag . 645
78 <210> SEQ ID NO: 3
79 <211> LENGTH: 1389
80 <212> TYPE: DNA
81 <213> ORGANISM: Artificial Sequence
83 <220> FEATURE:
84 <223> OTHER INFORMATION: Description of Artificial Sequence:cDNA for heavy
85   chain of recombinant antibody with 3'-histidine
86   tag sequence
88 <400> SEQUENCE: 3
89 gaggtccagc tgcacagtc tggacctgaa ctgggtgaagc ctggggcttc agtgatgata 60
90 tctgcagga cttctgcata cacattcact gaaaacaccg tgcactgggt gaagcagagc 120
91 catggagaga gccttgagtg gattggaggt attaatcctt actatgggtg ttctatcttc 180
92 agcccgaagt tcaagggcaa ggccacattg actgtagaca agtctccag cacagcctac 240
93 atggagctcc gcagcctgac atctgaggat tctgcagtct attactgtgc aagaagggct 300
94 ggggcgtact actttgacta ctggggccaa ggcaccactc tcacagtctc ctcagccaaa 360
95 acaacacccc catcagtcta tccactggcc cctgggtgtg gagatacaac tggttcctcc 420
96 gtgactctgg gatgcctggt caagggctac ttccctgagt cagtactgtg gacttggaac 480
97 tctggatccc tgtccagcag tgtgcacacc ttcccagctc tcctgcagtc tggactctac 540
98 actatgagca gctcagtgc tgccccctcc agcacctggc caagtccagc cgtcacctgc 600
99 agcgttgctc acccagccag cagcaccacg gtggacaaaa aacttgagcc cagcggggcc 660
100 atttcaacaa tcaaccctg tctccatgc aaggagtgtc acaaagccc agtctctaac 720
101 ctgcagggtg gaccatccgt cttcatcttc cctccaaata tcaaggatgt actcatgac 780
102 tccctgacac ccaaggtcac gtgtgtggtg gtggatgtga gcgaggatga cccagacgtc 840
103 cagatcagct ggtttgtgaa caacgtggaa gtacacacag ctcagacaca aaccataga 900
104 gaggattaca acagtactat ccgggtggtc agcacctcc ccatccagca ccaggactgg 960
105 atgagtggca aggagttcaa atgcaaggtc aacaacaaag acctcccac acccatcgag 1020
106 agaaccatct caaaaattaa agggctagtc agagctccac aagtatacat cttgccgcc 1080
107 ccagcagagc agttgtccag gaaagatgtc agtctcactt gcctggctgt gggcttcaac 1140
108 cctggagaca tcagtgtgga gtggaccagc aatgggcata cagaggagaa ctacaaggac 1200
109 accgcaccag tcttggaact tgacggttct tacttcatat atagcaagct caatatgaaa 1260
110 acaagcaagt gggagaaaac agattccttc tcatgcaacg tgagacacga ggtctgaaa 1320
111 aattactacc tgaagaagac catctccggg tctccgggta aaggtggcca tcaccaccat 1380
112 caccattga . 1389
115 <210> SEQ ID NO: 4
116 <211> LENGTH: 454

```

RAW SEQUENCE LISTING                      DATE: 02/21/2001  
 PATENT APPLICATION: US/09/653,755A        TIME: 13:16:23

Input Set : A:\Mab4g10.app  
 Output Set: N:\CRF3\02212001\I653755A.raw

```

117 <212> TYPE: PRT
118 <213> ORGANISM: Artificial Sequence
120 <220> FEATURE:
121 <223> OTHER INFORMATION: Description of Artificial Sequence:Amino acid
122     sequence for heavy chain of recombinant antibody
124 <400> SEQUENCE: 4
125 Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
126   1           5           10           15
128 Ser Val Met Ile Ser Cys Arg Thr Ser Ala Tyr Thr Phe Thr Glu Asn
129           20           25           30
131 Thr Val His Trp Val Lys Gln Ser His Gly Glu Ser Leu Glu Trp Ile
132           35           40           45
134 Gly Gly Ile Asn Pro Tyr Tyr Gly Gly Ser Ile Phe Ser Pro Lys Phe
135           50           55           60
137 Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Thr Ala Tyr
138           65           70           75           80
140 Met Glu Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
141           85           90           95
143 Ala Arg Arg Ala Gly Ala Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
144           100          105          110
146 Thr Leu Thr Val Ser Ser Ala Lys Thr Thr Pro Pro Ser Val Tyr Pro
147           115          120          125
149 Leu Ala Pro Gly Cys Gly Asp Thr Thr Gly Ser Ser Val Thr Leu Gly
150           130          135          140
152 Cys Leu Val Lys Gly Tyr Phe Pro Glu Ser Val Thr Val Thr Trp Asn
153 145           150          155          160
155 Ser Gly Ser Leu Ser Ser Val His Thr Phe Pro Ala Leu Leu Gln
156           165          170          175
158 Ser Gly Leu Tyr Thr Met Ser Ser Ser Val Thr Val Pro Ser Ser Thr
159           180          185          190
161 Trp Pro Ser Gln Thr Val Thr Cys Ser Val Ala His Pro Ala Ser Ser
162           195          200          205
164 Thr Thr Val Asp Lys Lys Leu Glu Pro Ser Gly Pro Ile Ser Thr Ile
165           210          215          220
167 Asn Pro Cys Pro Pro Cys Lys Glu Cys His Lys Cys Pro Ala Pro Asn
168 225           230          235          240
170 Leu Glu Gly Gly Pro Ser Val Phe Ile Phe Pro Pro Asn Ile Lys Asp
171           245          250          255
173 Val Leu Met Ile Ser Leu Thr Pro Lys Val Thr Cys Val Val Val Asp
174           260          265          270
176 Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser Trp Phe Val Asn Asn
177           275          280          285
179 Val Glu Val His Thr Ala Gln Thr Gln Thr His Arg Glu Asp Tyr Asn
180           290          295          300
182 Ser Thr Ile Arg Val Val Ser Thr Leu Pro Ile Gln His Gln Asp Trp
183 305           310          315          320
185 Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn Asn Lys Asp Leu Pro
186           325          330          335
188 Ser Pro Ile Glu Arg Thr Ile Ser Lys Ile Lys Gly Leu Val Arg Ala

```

RAW SEQUENCE LISTING                      DATE: 02/21/2001  
 PATENT APPLICATION: US/09/653,755A        TIME: 13:16:23

Input Set : A:\Mab4g10.app  
 Output Set: N:\CRF3\02212001\I653755A.raw

```

189          340          345          350
191 Pro Gln Val Tyr Ile Leu Pro Pro Pro Ala Glu Gln Leu Ser Arg Lys
192          355          360          365
194 Asp Val Ser Leu Thr Cys Leu Val Val Gly Phe Asn Pro Gly Asp Ile
195          370          375          380
197 Ser Val Glu Trp Thr Ser Asn Gly His Thr Glu Glu Asn Tyr Lys Asp
198 385          390          395          400
200 Thr Ala Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Ile Tyr Ser Lys
201          405          410          415
203 Leu Asn Met Lys Thr Ser Lys Trp Glu Lys Thr Asp Ser Phe Ser Cys
204          420          425          430
206 Asn Val Arg His Glu Gly Leu Lys Asn Tyr Tyr Leu Lys Lys Thr Ile
207          435          440          445
209 Ser Arg Ser Pro Gly Lys
210          450
213 <210> SEQ ID NO: 5
214 <211> LENGTH: 214
215 <212> TYPE: PRT
216 <213> ORGANISM: Artificial Sequence
218 <220> FEATURE:
219 <223> OTHER INFORMATION: Description of Artificial Sequence:Amino acid
220      sequence for light chain of recombinant antibody
222 <400> SEQUENCE: 5
223 Glu Asn Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly
224 1          5          10          15
226 Glu Lys Val Thr Met Thr Cys Arg Ala Ser Ser Ser Val Ser Ser Ser
227          20          25          30
229 Tyr Leu His Trp Tyr Arg Gln Lys Ser Gly Ala Ser Pro Lys Leu Trp
230          35          40          45
232 Ile Tyr Ser Thr Ser Asn Leu Ala Ser Gly Val Pro Ala Arg Phe Ser
233          50          55          60
235 Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Val Glu
236 65          70          75          80
238 Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Tyr Ser Gly Tyr Arg
239          85          90          95
241 Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala
242          100         105         110
244 Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly
245          115         120         125
247 Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr Pro Arg Asp Ile
248          130         135         140
250 Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu
251 145         150         155         160
253 Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser
254          165         170         175
256 Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr
257          180         185         190
259 Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser
260          195         200         205

```

RAW SEQUENCE LISTING                      DATE: 02/21/2001  
 PATENT APPLICATION: US/09/653,755A        TIME: 13:16:23

Input Set : A:\Mab4g10.app  
 Output Set: N:\CRF3\02212001\I653755A.raw

```

262 Phe Asn Arg Asn Glu Cys
263      210
266 <210> SEQ ID NO: 6
267 <211> LENGTH: 462
268 <212> TYPE: PRT
269 <213> ORGANISM: Artificial Sequence
271 <220> FEATURE:
272 <223> OTHER INFORMATION: Description of Artificial Sequence:Amino acid
273      sequence for heavy chain of recombinant antibody
274      with C-terminal histidine tag sequence
276 <400> SEQUENCE: 6
277 Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
278      1          5          10          15
280 Ser Val Met Ile Ser Cys Arg Thr Ser Ala Tyr Thr Phe Thr Glu Asn
281      20          25          30
283 Thr Val His Trp Val Lys Gln Ser His Gly Glu Ser Leu Glu Trp Ile
284      35          40          45
286 Gly Gly Ile Asn Pro Tyr Tyr Gly Gly Ser Ile Phe Ser Pro Lys Phe
287      50          55          60
289 Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr
290      65          70          75          80
292 Met Glu Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
293      85          90          95
295 Ala Arg Arg Ala Gly Ala Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
296      100         105         110
298 Thr Leu Thr Val Ser Ser Ala Lys Thr Thr Pro Pro Ser Val Tyr Pro
299      115         120         125
301 Leu Ala Pro Gly Cys Gly Asp Thr Thr Gly Ser Ser Val Thr Leu Gly
302      130         135         140
304 Cys Leu Val Lys Gly Tyr Phe Pro Glu Ser Val Thr Val Thr Trp Asn
305      145         150         155         160
307 Ser Gly Ser Leu Ser Ser Ser Val His Thr Phe Pro Ala Leu Leu Gln
308      165         170         175
310 Ser Gly Leu Tyr Thr Met Ser Ser Ser Val Thr Val Pro Ser Ser Thr
311      180         185         190
313 Trp Pro Ser Gln Thr Val Thr Cys Ser Val Ala His Pro Ala Ser Ser
314      195         200         205
316 Thr Thr Val Asp Lys Lys Leu Glu Pro Ser Gly Pro Ile Ser Thr Ile
317      210         215         220
319 Asn Pro Cys Pro Pro Cys Lys Glu Cys His Lys Cys Pro Ala Pro Asn
320      225         230         235         240
322 Leu Glu Gly Gly Pro Ser Val Phe Ile Phe Pro Pro Asn Ile Lys Asp
323      245         250         255
325 Val Leu Met Ile Ser Leu Thr Pro Lys Val Thr Cys Val Val Val Asp
326      260         265         270
328 Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser Trp Phe Val Asn Asn
329      275         280         285
331 Val Glu Val His Thr Ala Gln Thr Gln Thr His Arg Glu Asp Tyr Asn
332      290         295         300

```

VERIFICATION SUMMARY                      DATE: 02/21/2001  
PATENT APPLICATION:    US/09/653,755A        TIME: 13:16:24

Input Set : A:\Mab4g10.app  
Output Set: N:\CRF3\02212001\I653755A.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application Number